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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ERIK BUSKING

Appeal 2008-5566
Application 10/608,597
Technology Center 2600

Decided:[1] April 1, 2009

Before KENNETH W. HAIRSTON, JOHN A. JEFFERY,
and CARL W. WHITEHEAD, JR., *Administrative Patent Judges*.

WHITEHEAD, JR., *Administrative Patent Judge*.

DECISION ON APPEAL

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[1] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

Appellant appeals under 35 U.S.C. § 134 from the Examiner's rejection of claims 1-9[2] (*see* App. Br. 1). We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

Appellant invented a communication system with variable filter bandwidth.[3]

Claim 1, which further illustrates the invention, follows:

> 1. A communication system with variable filter bandwidth comprises:
>
> a first mixer circuit disposed within a high frequency integrated circuit having input ports configured to receive a first communication signal and shift the frequency range of said communication signal to a first frequency range;
>
> a second mixer circuit disposed within said high frequency integrated circuit having input ports configured to receive said first communication signal and shift the frequency range of said first communication signal to a second frequency range;
>
> an amplifier coupled to said first and second mixer circuits for providing said first communication signal to said first and second mixer circuits;
>
> an activation circuit coupled to the first and second mixer circuits so as to provide an activation signal that selectively activates any one of the mixer circuits;
>
> first and second filter circuits each configured to receive a signal from said first and second mixer circuits, when a corresponding one of said mixer circuits is activated and to provide a signal to a low frequency integrated circuit; and

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[2] The Examiner objects to claim 9 (Ans. 3)—a petitionable matter that is not before us. *See* MPEP § 706.01 ("[T]he Board will not hear or decide issues pertaining to objections and formal matters which are not properly before the Board."); *see also* MPEP § 1201 ("The Board will not ordinarily hear a question that should be decided by the Director on petition . . . .").

[3] *See generally* App. Br. 2-3.

wherein when one of said mixer circuits is activated, the remaining mixer circuit does not generate an output voltage signal.

The Rejections

The Examiner relies upon the following prior art references as evidence of unpatentability:

Lindqvist	US 5,530,929	Jun. 25, 1996
Hornak	US 5,678,222	Oct. 14, 1997

Claims 1-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hornak and Lindqvist (Ans. 3-5).[4]

Rather than repeat the arguments of Appellant or the Examiner, we refer to the Briefs (Appeal Brief filed Dec. 13, 2006, and Reply Brief filed May 17, 2007) and the Answer (mailed Mar. 21, 2007) for their respective details. In this decision, we have considered only those arguments actually made by Appellant. Arguments which Appellant could have made but did not make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Appellant argues that Hornak only discloses a single mixer circuit having a single mixer 123, a local oscillator 127 and a phase shifter 133 (App. Br. 4, ll. 3-6). The three elements fail to disclose or even suggest the

[4] Appellant states that "[c]laims 1, 6, and 7 are being appealed" (App. Br. 2), but omits the remaining rejected claims in this statement. "If upon filing an appeal brief, the applicant limits the claims to be considered on appeal, then it is the practice of the Patent and Trademark Office to treat the claims not pursued in the appeal brief as having been withdrawn from the appeal." *See Ex parte Ghuman*, 88 USPQ2d 1478, 1480 (BPAI 2008) (precedential). Appellant, however, nonetheless presents arguments for claims 2-5, 8, and 9 (App. Br. 5) and in doing so, constructively appeals those claims that would otherwise be withdrawn. Therefore, claims 2-5, 8, and 9 are before us.

existence of a second mixer circuit (App. Br. 4, ll. 5-6). The Examiner argues that Hornak discloses two mixer circuits (the 1st circuit (123, 127), and the 2nd circuit (123, 127, 133)) (Ans. 6-8).

ISSUE

Has the Appellant shown that the Examiner erred in finding that the combination of Hornak and Lindqvist discloses two mixer circuits?

FINDINGS OF FACT

The record supports the following findings of fact (FF) by a preponderance of the evidence.

Hornak

1. Figure 5A of Hornak

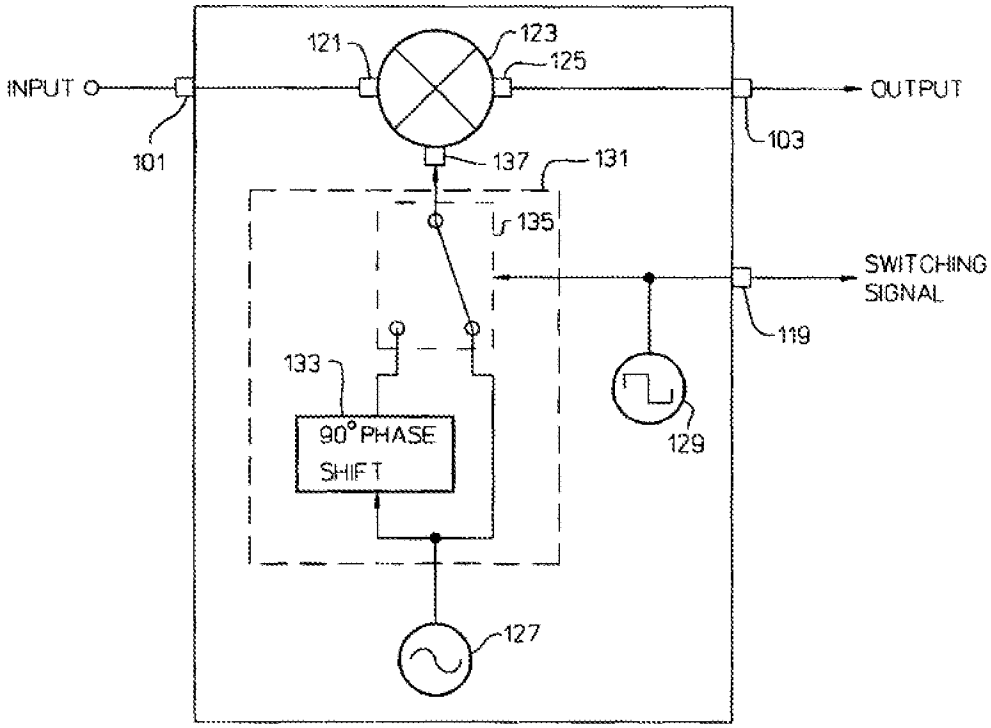

FIG. 5A

Figure 5A discloses a time share mixer circuit having an input (101), mixer (123), switching element (135), switching signal source (129), phase shifter (133), output (103), and local oscillator (127).

2. Figure 12 of Hornak

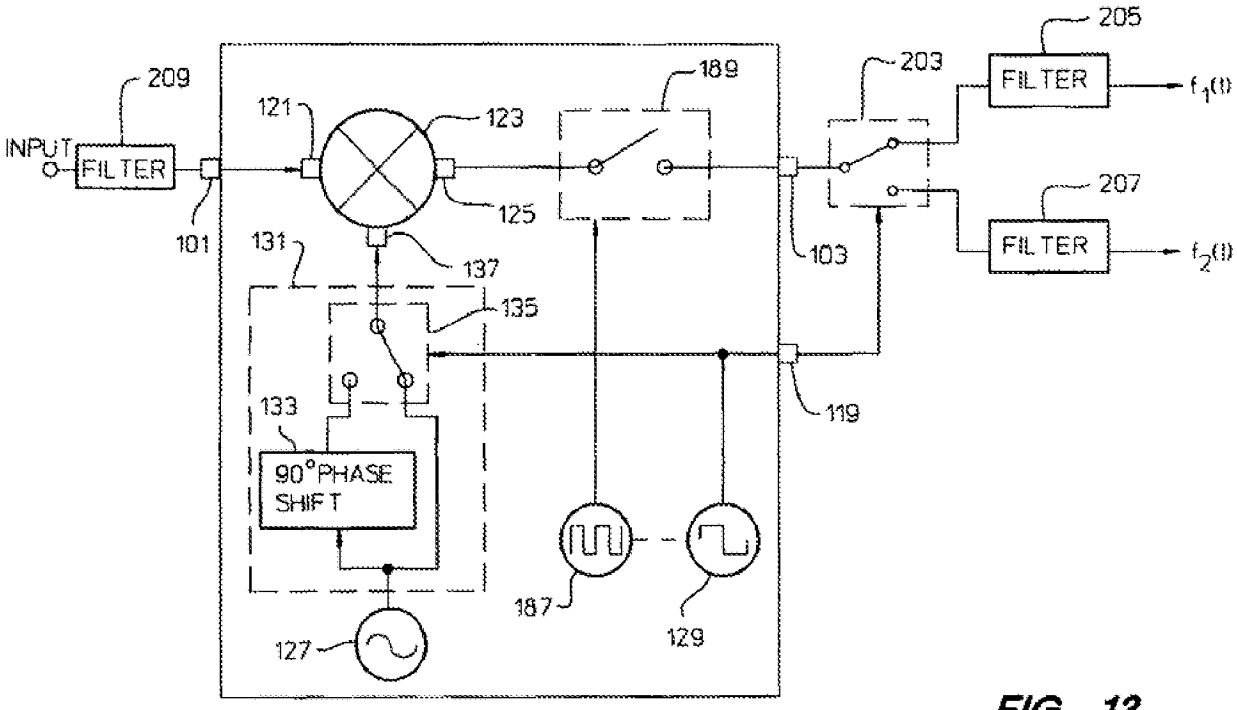

FIG. 12

Figure 12 discloses a time share mixer circuit having an input (101), mixer (123), switching element (135), switching signal source (129), phase shifter (133), output (103), local oscillator (127), duty cycle element (203), low pass filters (205, 207), and duty cycle signal source (187).

Lindqvist

3. Figure 2 of Lindqvist

FIG. 2

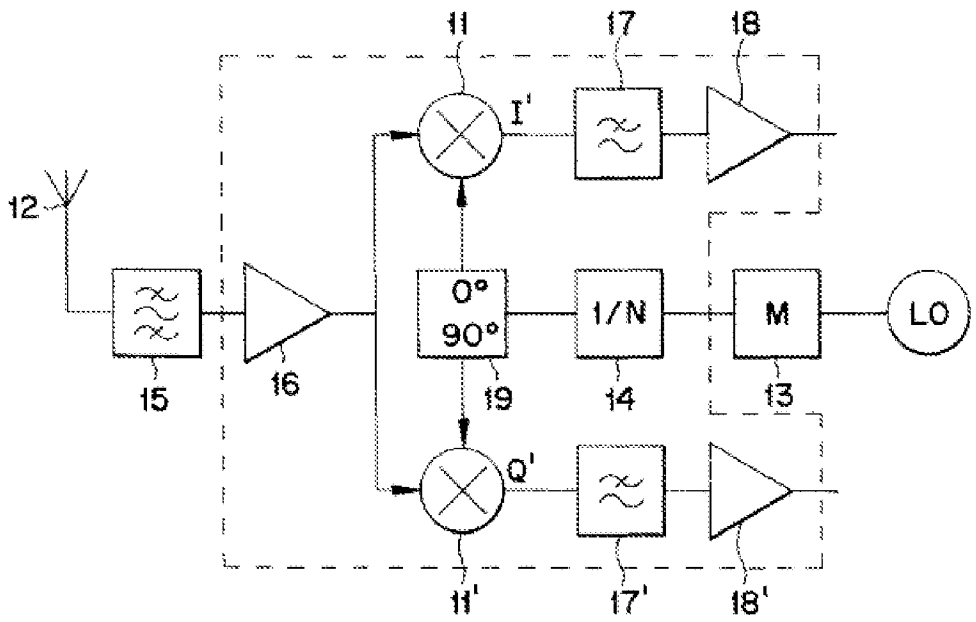

Figure 2 discloses a homodyne receiver incorporating amplifiers (16, 18, and 18').

PRINCIPLES OF LAW

During examination of a patent application, a claim is given its broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004) (citations omitted) (internal quotation marks omitted). "[T]he words of a claim 'are generally given their ordinary and customary meaning.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal citations omitted).

Office personnel must rely on Appellant's disclosure to properly determine the meaning of the terms used in the claims. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995) (en banc). "[I]nterpreting what is *meant* by a word *in* a claim is not to be confused with

adding an extraneous limitation appearing in the specification, which is improper." *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1348 (Fed. Cir. 2002) (citations omitted) (internal quotation marks omitted).

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See *In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966) (stating that 35 U.S.C. § 103 leads to three basic factual inquiries: the scope and content of the prior art, the differences between the prior art and the claims at issue, and the level of ordinary skill in the art). If the Examiner's burden is met, the burden then shifts to Appellant to overcome the prima facie case with argument and/or evidence. *See In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *Id.*

ANALYSIS

Claims 1 and 6

Appellant argues that Hornak discloses a single mixer 123 while claim 1 requires two mixers (App. Br. 3-4). Appellant further argues that Hornak's local oscillator 127 and phase shifter 133 do not disclose or suggest a second mixer circuit (App. Br. 4). The Examiner argues that Hornak discloses a first mixer circuit (123, 127) and a second mixer circuit (123, 127, 133) (Ans. 6-7). The Appellant's arguments are not commensurate with the scope of the claims.

We agree that Hornak only discloses one mixer (FF 1-2). However, the claims specify mixer *circuits* (App. Br. 7-9; emphasis added), and therefore the mixer alone is not a dispositive distinction between the claims and the prior art. Although Hornak's two circuits share a common mixer, the existence of other components such as phase shifters and local oscillators constitutes separate circuits (FF 1-2). Thus, we consider the Examiner's interpretation to be reasonable based upon the record before us.

Appellant further argues that Lindqvist does not address the deficiencies of Hornak because both fail to disclose circuits that are selectively activated (App. Br. 4). However, Examiner did not employ Lindqvist to address the activation of the circuits (Ans. 3-5). The Examiner relies upon Hornak to disclose a switch that selectively activates the two circuits so, when one of the circuits is active, the other circuit does not generate an output voltage signal (FF 1-2). We are not persuaded by Appellant's arguments and we find the Examiner's interpretation to be reasonable based upon the record before us.

Appellant argues that the claimed invention has two sets of input ports and Hornak only discloses a single set of input ports (Reply Br. 3). "It is well settled that the mere duplication of parts has no patentable significance unless a new and unexpected result is produced." *See In re Harza*, 274 F.2d 669, 671 (1960). We are therefore not persuaded by the Appellant's argument that two sets of inputs demonstrate nonobviousness.

Appellant argues that the combination of Hornak and Lindqvist fails to disclose shifting the frequency range by each mixer circuit to a first and second frequency range (Reply Br. 3-5).

Claim 1 requires the input signal to be shifted to a first and second frequency range (App. Br. 7). However, there is no quantitative comparison between the first and second frequency ranges defined in claim 1. Therefore a reasonable interpretation of claim 1 would encompass the first and second frequency ranges to either be equivalent or dissimilar (Ans. 8). Further, defining what constitutes equivalent or dissimilar frequency ranges is problematic because there are no boundaries for the ranges set forth in the claims. Therefore in the absence of both quantitative range comparisons and definitive range boundaries in the claims, we find the Examiner's interpretation to be reasonable.

Appellant argues that the combination of Hornak and Lindqvist fails to disclose plural mixing circuitry required in claim 6 for shifting the frequency range of the communication signal (Reply Br. 4). The Examiner argues that Hornak discloses a first mixer circuit (123, 127) and a second mixer circuit (123, 127, 133) (Ans. 6-7). We are not persuaded by Appellant's argument for the reasons previously discussed in connection with claim 1.

Claim 7

Appellant argues that claim 7 further requires the step of shifting the frequency range via each mixer circuit to substantially the same frequency range, and the combination of Hornak and Lindqvist does not disclose such a step (App. Br. 5). The Examiner argues that Hornak's output IF signals would have the same frequency range based upon the data disclosed in Hornak (Ans. 8). We are not persuaded by Appellant's argument for the reasons previously discussed in connection with claim 1.

Claims 2-5, 8, and 9

Appellant does not separately argue with particularity the limitations of claims 2-5, 8, and 9 apart from merely asserting that these claims recite further features that are not taught or suggested by cited prior art (App. Br. 5). Such conclusory assertions without supporting explanation or analysis particularly pointing out errors in the Examiner's reasoning fall well short of persuasively rebutting the Examiner's prima facie case of obviousness. *See Oetiker*, 977 F.2d at 1445. We therefore sustain the Examiner's rejection of claims 2-5, 8, and 9 for the reasons indicated previously.

CONCLUSION OF LAW

Appellant has not shown that the Examiner erred in finding that the combination of Hornak and Lindqvist discloses two mixer circuits.

ORDER

We sustain the Examiner's decision to reject claims 1-9 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

babc

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